

SEQUENCE LISTING

<110> Fisher, Paul B.

<120> COMBINATORIAL METHODS FOR INDUCING
CANCER CELLS

<130> a34466 070050.1618

<140> TBA

<141> 2001-08-20

<160> 17

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 1700

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (275)...(895)

<223> CDS = 275-895

<400> 1

```

cttgccctgca aacctttact tctgaaatga cttccacggc tgggacggga accttccacc 60
cacagctatg cctctgattg gtgaatgggtg aagggtgcctg tctaactttt ctgtaaaaag 120
aaccagctgc ctccaggcag ccagccctca agcatcactt acaggaccag agggacaaga 180
catgactgtg atgaggagct gctttcgcca atttaacacc aagaagaatt gaggctgctt 240
gggaggaagg ccaggaggaa cacgagactg agagatgaat tttcaacaga ggctgcaaag 300
cctgtggact ttagccagac ccttctgccc tcctttgctg gcgacagcct ctcaaagtca 360
gatggttgtg ctcccttgcc tgggttttac cctgcttctc tggagccagg tatcaggggc 420
ccagggccaa gaattccact ttggggccctg ccaagtgaag ggggttggtc cccagaaact 480
gtgggaagcc ttctgggctg tgaaagacac tatgcaagct caggataaca tcacgagtgc 540
ccggctgctg cagcaggagg ttctgcagaa cgtctcggat gctgagagct gttaccttgt 600
ccacaccctg ctggagttct acttgaaaac tgttttcaaa aactaccaca atagaacagt 660
tgaagtcagg actctgaagt cattctctac tctggccaac aactttgttc tcatcgtgtc 720
acaactgcaa cccagtcaag aaaatgagat gttttccatc agagacagtg cacacaggcg 780
gtttctgcta ttccggagag cattcaaaca gttggacgta gaagcagctc tgaccaaagc 840
ccttggggaa gtggacattc ttctgacctg gatgcagaaa ttctacaagc tctgaatgtc 900
tagaccagga cctccctccc cctggcactg gtttgttccc tgtgtcattt caaacagtct 960
cccttcctat gctgttcact ggacacttca cgcccttggc catgggtccc attcttggcc 1020
caggattatt gtcaaagaag tcattcttta agcagcgcca gtgacagtca ggggaagggtgc 1080
ctctggatgc tgtgaagagt ctacagagaa gattcttgta tttattacaa ctctatttaa 1140
ttaatgtcag tattttcaact gaagtctctat ttatttgtga gactgtaagt tacatgaagg 1200
cagcagaata ttgtgcccc tgcctcttta cccctcacia tccttggcac agtgtggggc 1260
agtggatggg tgcttagtaa gtacttaata aactgtggtg ctttttttgg cctgtctttg 1320
gattgttaaa aaacagagag ggatgcttgg atgtaaaact gaacttcaga gcatgaaaat 1380
cacactgtct gctgatatct gcagggacag agcattgggg tgggggtaag gtgcatctgt 1440
ttgaaaagta aacgataaaa tgtggattaa agtgcccagc acaaagcaga tcctcaataa 1500
acatttcatt tcccaccac actcgccagc tcaccccatc atccctttcc cttggtgccc 1560
tccttttttt tttatcctag tcattcttcc ctaatcttcc acttgagtgt caagctgacc 1620
ttgctgatgg tgacattgca cctggatgta ctatccaatc tgtgatgaca ttccctgcta 1680
ataaaagaca acataactca
1700

```

<210> 2
 <211> 206
 <212> PRT
 <213> Homo sapiens

<400> 2
 Met Asn Phe Gln Gln Arg Leu Gln Ser Leu Trp Thr Leu Ala Arg Pro
 1 5 10 15
 Phe Cys Pro Pro Leu Leu Ala Thr Ala Ser Gln Met Gln Met Val Val
 20 25 30
 Leu Pro Cys Leu Gly Phe Thr Leu Leu Leu Trp Ser Gln Val Ser Gly
 35 40 45
 Ala Gln Gly Gln Glu Phe His Phe Gly Pro Cys Gln Val Lys Gly Val
 50 55 60
 Val Pro Gln Lys Leu Trp Glu Ala Phe Trp Ala Val Lys Asp Thr Met
 65 70 75 80
 Gln Ala Gln Asp Asn Ile Thr Ser Ala Arg Leu Leu Gln Gln Glu Val
 85 90 95
 Leu Gln Asn Val Ser Asp Ala Glu Ser Cys Tyr Leu Val His Thr Leu
 100 105 110
 Leu Glu Phe Tyr Leu Lys Thr Val Phe Lys Asn Tyr His Asn Arg Thr
 115 120 125
 Val Glu Val Arg Thr Leu Lys Ser Phe Ser Thr Leu Ala Asn Asn Phe
 130 135 140
 Val Leu Ile Val Ser Gln Leu Gln Pro Ser Gln Glu Asn Glu Met Phe
 145 150 155 160
 Ser Ile Arg Asp Ser Ala His Arg Arg Phe Leu Leu Phe Arg Arg Ala
 165 170 175
 Phe Lys Gln Leu Asp Val Glu Ala Ala Leu Thr Lys Ala Leu Gly Glu
 180 185 190
 Val Asp Ile Leu Leu Thr Trp Met Gln Lys Phe Tyr Lys Leu
 195 200 205

<210> 3
 <211> 20
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (0)...(0)
 <223> primer for mda-7

<400> 3
 atgctctgtc cctgcagata

20

<210> 4
 <211> 20
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (0)...(0)
 <223> primer for MDA-7

<400> 4
ctctggatgc tgtgaagagt

20

<210> 5
<211> 12
<212> PRT
<213> Homo sapiens

<220>
<223> 153-164 of human MDA-7

<400> 5
Pro Ser Gln Glu Asn Glu Met Phe Ser Ile Arg Asp
1 5 10

<210> 6
<211> 5775
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (193)...(759)
<223> CDS = 193-759

<400> 6
tcctaggcgg cggccgcggc ggccggaggca gcagcggcgg cggcagtggc ggccggcgaag 60
gtggcggcgg ctcggccagt actcccggcc cccgccattt cggactggga gcgagcgcgg 120
cgcaggcact gaaggcggcg gcggggccag aggcctcagcg gctcccaggt gcgggagaga 180
ggcctgctga aaatgactga atataaaactt gtggtagtgt gagcttgtgg cgtaggcaag 240
agtgccttga cgatacagct aattcagaat cattttgttg acgaatatga tccaacaata 300
gaggattcct acaggaagca agtagtaatt gatggagaaa cctgtctctt ggatattctc 360
gacacagcag gtcaagagga gtacagtgca atgagggacc agtacatgag gactggggag 420
ggctttcttt gtgtatttgc cataaataat actaaatcat ttgaagatat tcaccattat 480
agagaacaaa ttaaaagagt taaggactct gaagatgtac ctatggctct agtaggaaat 540
aaatgtgatt tgccttctag aacagttagc acaaaacagg ctcaggactt agcaagaagt 600
tatggaattc cttttattga aacatcagca aagacaagac aggggtgttg tgatgccttc 660
tatacattag ttcgagaaat tcgaaaacat aaagaaaaga tgagcaaaga tggtaaaaag 720
aagaaaaaga agtcaaagac aaagtgtgta attatgtaaa tacaatttgt acttttttct 780
taaggcatac tagtacaagt ggtaattttt gtacattaca ctaaattatt agcatttgtt 840
ttagcattac ctaatttttt tcctgctcca tgcagactgt tagcttttac cttaaatgct 900
tatttttaaaa tgacagtgga agtttttttt tcctcgaagt gccagtattc ccagagtttt 960
ggttttttgaa ctagcaatgc ctgtgaaaaa gaaactgaat acctaaagatt tctgtcttgg 1020
ggttttttggt gcatgcagtt gattacttct tatttttctt accaagtgtg aatgttgggtg 1080
tgaaacaaat taatgaagct tttgaatcat ccctattctg tgttttatct agtcacataa 1140
atggattaat tactaatttc agttgagacc ttctaattgg tttttactga aacattgagg 1200
gacacaaatt tatgggcttc ctgatgatga ttcttctagg catcatgtcc tatagtttgt 1260
catccctgat gaatgtaaag ttacactgtt cacaaagggt ttgtctcctt tccactgcta 1320
ttagtcatgg tcaactctcc caaaatatta tattttttct ataaaaagaa aaaaatggaa 1380
aaaaattaca aggcaatgga aactattata aggccatttc cttttcacat tagataaatt 1440
actataaaga ctccctaatag ctttttcctg ttaaggcaga cccagtatga atgggattat 1500
tatagcaacc attttggggc tatatttaca tgctactaaa tttttataat aattgaaaag 1560
attttaacaa gtataaaaaa attctcatag gaattaaatg tagtctccct gtgtcagact 1620
gctctttcat agtataaact taaatctttt cttcaacttg agtctttgaa gatagtttta 1680
attctgcttg tgacattaaa agattatttg ggccagttat agcttattag gtgttgaaga 1740

gaccaagggtt	gcaagccagg	ccctgtgtga	accttgagct	ttcatagaga	gtttcacagc	1800
atggactgtg	tgccccacgg	tcatccgagt	ggttgtacga	tgcattgggt	agtcaaaaat	1860
ggggaggggac	tagggcgagtt	tggatagctc	aacaagatac	aatctcactc	tgtgggtggtc	1920
ctgctgacaa	atcaagagca	ttgcttttgt	ttcttaagaa	aacaaactct	tttttaaaaa	1980
ttacttttta	atattaactc	aaaagttgag	attttgggg	ggtggtgtgc	caagacatta	2040
atTTTTTTTT	taaacaatga	agtgaaaaag	ttttacaatc	tctaggtttg	gctagttctc	2100
ttaacactgg	ttaaattaac	attgcataaa	cacttttcaa	gtctgatcca	tattttaataa	2160
tgcttttaaaa	taaaaataaa	aacaatcctt	ttgataaatt	taaaaagtta	cttatttttaa	2220
aataaatgaa	gtgagatggc	atggtgaggt	gaaagtatca	ctggactagg	ttgttgggtga	2280
cttaggttct	agataggtgt	cttttaggac	tctgattttg	aggacatcac	ttactatcca	2340
tttcttcatg	ttaaaaagaag	tcactctcaa	ctcttagttt	ttttttttta	cactatgtga	2400
tttatattcc	atttacataa	ggatacactt	atttgtcaag	ctcagcacaa	tctgtaaatt	2460
tttaacctat	gttacaccat	cttcagtgcc	agtctttggc	aaaattgtgc	aagaggtgaa	2520
gtttatattt	gaatatccat	tctcgtttta	ggactcttct	tccatattag	tgtcatcttg	2580
cctccctacc	ttccacatgc	cccagcactt	gatgcagttt	taataacttg	aattcccccta	2640
accataagat	ttactgctgc	tgtggatatc	tccatgaagt	tttcccactg	agtcacatca	2700
gaaatgccct	acatcttatt	ttcctcaggg	ctcaagagaa	tctgacagat	accataaagg	2760
gatttgacct	aatcactaat	tttcaggtgg	tggctgatgc	tttgaacatc	tctttgctgc	2820
ccaatccatt	agcgacagta	ggattttttca	acctgggtat	gaatagacag	aaccctatcc	2880
agtggaagga	gaatttaata	aagatagtgc	agaaagaatt	ccttaggtaa	tctataacta	2940
ggactactcc	tggtaacagt	aatacattcc	attgttttag	taaccagaaa	tcttcatgca	3000
atgaaaaata	ctttaattca	tgaagcttac	tttttttttt	ttgggtgtcag	agtctcgctc	3060
ttgtcaccca	ggctggaatg	cagtggcgcc	atctcagctc	actgcaacct	tccatcttcc	3120
caggttcaag	cgattctcgt	gcctcggcct	cctgagtagc	tgggattaca	ggcgtgtgca	3180
ctacactcaa	ctaatttttg	tatttttagg	agagacgggg	tttcacctgt	tggccaggtt	3240
ggctctgaac	tcctgacctc	aagtgattca	cccaccttgg	cctcataaac	ctgtttttgca	3300
gaactcattt	attcagcaaa	tatttattga	gtgcctacca	cgatgccagtc	accgcacaag	3360
gcactgggta	tatggtatcc	caaacaagta	gacataatcc	cggctccttag	gtactgctag	3420
tgtggtctgt	aatatctttac	taaggtcctt	ggtatacgac	ccagagataa	cacgatgcgt	3480
attttagttt	tgcгаааааg	gggtttggtc	tctgtgccag	ctctataaatt	gttttgctac	3540
gattccactg	aaactcttcg	atcaagctac	tttatgtaaa	tcacttcatt	gttttaaagg	3600
aataaaacttg	atttatattgt	ttttttattt	ggcataactg	tgattctttt	aggacaatta	3660
ctgtacacat	taaggtgtat	gtcagatatt	catattgacc	caaattgtgta	atattccagt	3720
tttctctgca	taagtaatta	aaatatactt	aaaaattaat	agttttatct	gggtacaaat	3780
aaacagtgcc	tgaactagtt	cacagacaag	ggaaacttct	atgtaaaaat	cactatgatt	3840
tctgaattgc	tatgtgaaac	tacagatctt	tggaaactct	tttaggtagg	gtgttaagac	3900
ttgacacagt	acctcgtttc	tacacagaga	aagaaatggc	catacttcag	gaactgcagt	3960
gcttatgagg	ggatatttag	gcctcttgaa	tttttgatgt	agatgggcat	ttttttaagg	4020
tagtggttaa	ttacctttat	gtgaactttg	aatggtttaa	caaaaagatt	gttttttagag	4080
agatttttaa	ggggggagaat	tctagaataa	aatgttacct	aattattaca	gccttaaga	4140
caaaaatcct	tgttgaagtt	tttttaaaaa	aagactaaat	tacatagact	taggcattaa	4200
catgttttgt	gagaatatata	gcagacgtat	attgtatcat	ttgagtgaat	gttcccaagt	4260
aggcattcta	ggctctattt	aactgagtca	cactgcatag	gaatttagaa	cctaactttt	4320
ataggttatc	aaaactgttg	tcaccattgc	acaattttgt	cctaataatat	acatagaaac	4380
tttgtggggc	atgttaagtt	acagtttgca	caagttcatc	tcatttgat	tccattgatt	4440
tttttttttc	ttctaaacat	tttttcttca	aaacagtata	tataactttt	tttaggggat	4500
ttttttttaga	cagcaaaaaa	ctatctgaag	atttccattt	gtcaaaaagt	aatgatttct	4560
tgataattgt	gtagtgaatg	tttttttagaa	cccagcagtt	accttgaaag	ctgaatttat	4620
atthagtaac	ttctgtgtta	atactggata	gcatgaattc	tgcattgaga	aactgaatag	4680
ctgtcataaa	atgctttctt	tcctaaagaa	agatactcac	atgagttctt	gaagaatagt	4740
cataactaga	ttaagatctg	tgtttttagtt	taatagtttg	aagtgcctgt	ttgggataat	4800
gataggtaat	ttagatgaat	ttaggggaaa	aaaaagttat	ctgcagttat	gttgaggggc	4860
catctctccc	cccacacccc	cacagagcta	actgggttac	agtgttttat	ccgaaagttt	4920
ccaattccac	tgtcttgtgt	tttcattgtt	aaaatacttt	ctgatttttc	ctttgagtg	4980
caatttctta	ctagtactat	ttcttaattg	aacatgttta	cctggcctgt	cttttaacta	5040
tttttgata	gtgtaaactg	aaacatgcac	attttgata	ttgtgcttcc	ttttgtgggt	5100
catatgcagt	gtgatccagt	tgttttccat	catttggttg	cgctgacct	ggaatgttgg	5160

```

tcatatcaaa cattaaaaat gaccactctt ttaatgaaat taacttttaa atgtttatag 5220
gagtatgtgc tgtgaagtga tctaaaattt gtaatatattt tgtcatgaac tgtactactc 5280
ctaattattg taatgtaata aaaatagtta cagtgactat gagtgtgtat ttattcatgc 5340
aaatttgaac tgtttgcccc gaaatggata tggatacttt ataagccata gacactatag 5400
tataccagtg aatcttttat gcagcttggtt agaagtatcc ttttattttc taaaagggtgc 5460
tgtggatatt atgtaaaggc gtgtttgctt aaacaatttt ccatatttag aagtagatgc 5520
aaaacaaatc tgcctttatg acaaaaaaat aggataacat tattttatta tttcctttta 5580
tcaataaggt aattgataca caacaggtga cttggtttta ggcccaaagg tagcagcagc 5640
aacattaata atggaaataa ttgaatagtt agttatgtat gttaatgcca gtcaccagca 5700
ggctatttca aggtcagaag taatgactcc atacatatta tttatttcta taactacatt 5760
taaatacatta ccagg                                     5775

```

<210> 7

<211> 188

<212> PRT

<213> Homo sapiens

<400> 7

```

Met Thr Glu Tyr Lys Leu Val Val Val Gly Ala Cys Gly Val Gly Lys
 1          5          10          15
Ser Ala Leu Thr Ile Gln Leu Ile Gln Asn His Phe Val Asp Glu Tyr
      20          25          30
Asp Pro Thr Ile Glu Asp Ser Tyr Arg Lys Gln Val Val Ile Asp Gly
      35          40          45
Glu Thr Cys Leu Leu Asp Ile Leu Asp Thr Ala Gly Gln Glu Glu Tyr
      50          55          60
Ser Ala Met Arg Asp Gln Tyr Met Arg Thr Gly Glu Gly Phe Leu Cys
65          70          75          80
Val Phe Ala Ile Asn Asn Thr Lys Ser Phe Glu Asp Ile His His Tyr
      85          90          95
Arg Glu Gln Ile Lys Arg Val Lys Asp Ser Glu Asp Val Pro Met Val
      100          105          110
Leu Val Gly Asn Lys Cys Asp Leu Pro Ser Arg Thr Val Asp Thr Lys
      115          120          125
Gln Ala Gln Asp Leu Ala Arg Ser Tyr Gly Ile Pro Phe Ile Glu Thr
      130          135          140
Ser Ala Lys Thr Arg Gln Gly Val Asp Asp Ala Phe Tyr Thr Leu Val
145          150          155          160
Arg Glu Ile Arg Lys His Lys Glu Lys Met Ser Lys Asp Gly Lys Lys
      165          170          175
Lys Lys Lys Lys Ser Lys Thr Lys Cys Val Ile Met
      180          185

```

<210> 8

<211> 188

<212> PRT

<213> Homo sapiens

<220>

<223> Xaa = any amino acid

<400> 8

```

Met Thr Glu Tyr Lys Leu Val Val Val Gly Ala Xaa Gly Val Gly Lys
 1          5          10          15
Ser Ala Leu Thr Ile Gln Leu Ile Gln Asn His Phe Val Asp Glu Tyr
      20          25          30

```

Asp	Pro	Thr	Ile	Glu	Asp	Ser	Tyr	Arg	Lys	Gln	Val	Val	Ile	Asp	Gly
	35						40					45			
Glu	Thr	Cys	Leu	Leu	Asp	Ile	Leu	Asp	Thr	Ala	Gly	Gln	Glu	Glu	Tyr
	50					55					60				
Ser	Ala	Met	Arg	Asp	Gln	Tyr	Met	Arg	Thr	Gly	Glu	Gly	Phe	Leu	Cys
65					70					75					80
Val	Phe	Ala	Ile	Asn	Asn	Thr	Lys	Ser	Phe	Glu	Asp	Ile	His	His	Tyr
			85						90					95	
Arg	Glu	Gln	Ile	Lys	Arg	Val	Lys	Asp	Ser	Glu	Asp	Val	Pro	Met	Val
			100						105					110	
Leu	Val	Gly	Asn	Lys	Cys	Asp	Leu	Pro	Ser	Arg	Thr	Val	Asp	Thr	Lys
		115					120					125			
Gln	Ala	Gln	Asp	Leu	Ala	Arg	Ser	Tyr	Gly	Ile	Pro	Phe	Ile	Glu	Thr
	130					135					140				
Ser	Ala	Lys	Thr	Arg	Gln	Gly	Val	Asp	Asp	Ala	Phe	Tyr	Thr	Leu	Val
145					150					155					160
Arg	Glu	Ile	Arg	Lys	His	Lys	Glu	Lys	Met	Ser	Lys	Asp	Gly	Lys	Lys
				165					170					175	
Lys	Lys	Lys	Lys	Ser	Lys	Thr	Lys	Cys	Val	Ile	Met				
			180					185							

<210> 9

<211> 188

<212> PRT

<213> Homo sapiens

<220>

<223> Xaa = any amino acid

<400> 9

Met	Thr	Glu	Tyr	Lys	Leu	Val	Val	Val	Gly	Ala	Cys	Xaa	Val	Gly	Lys
1				5					10					15	
Ser	Ala	Leu	Thr	Ile	Gln	Leu	Ile	Gln	Asn	His	Phe	Val	Asp	Glu	Tyr
			20					25					30		
Asp	Pro	Thr	Ile	Glu	Asp	Ser	Tyr	Arg	Lys	Gln	Val	Val	Ile	Asp	Gly
	35					40						45			
Glu	Thr	Cys	Leu	Leu	Asp	Ile	Leu	Asp	Thr	Ala	Gly	Gln	Glu	Glu	Tyr
	50					55					60				
Ser	Ala	Met	Arg	Asp	Gln	Tyr	Met	Arg	Thr	Gly	Glu	Gly	Phe	Leu	Cys
65					70					75					80
Val	Phe	Ala	Ile	Asn	Asn	Thr	Lys	Ser	Phe	Glu	Asp	Ile	His	His	Tyr
			85						90					95	
Arg	Glu	Gln	Ile	Lys	Arg	Val	Lys	Asp	Ser	Glu	Asp	Val	Pro	Met	Val
			100						105					110	
Leu	Val	Gly	Asn	Lys	Cys	Asp	Leu	Pro	Ser	Arg	Thr	Val	Asp	Thr	Lys
		115					120					125			
Gln	Ala	Gln	Asp	Leu	Ala	Arg	Ser	Tyr	Gly	Ile	Pro	Phe	Ile	Glu	Thr
	130					135					140				
Ser	Ala	Lys	Thr	Arg	Gln	Gly	Val	Asp	Asp	Ala	Phe	Tyr	Thr	Leu	Val
145					150					155					160
Arg	Glu	Ile	Arg	Lys	His	Lys	Glu	Lys	Met	Ser	Lys	Asp	Gly	Lys	Lys
				165					170					175	
Lys	Lys	Lys	Lys	Ser	Lys	Thr	Lys	Cys	Val	Ile	Met				
			180					185							

<210> 10
 <211> 188
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Xaa = any amino acid

<400> 10
 Met Thr Glu Tyr Lys Leu Val Val Val Gly Ala Cys Gly Val Gly Lys
 1 5 10 15
 Ser Xaa Leu Thr Ile Gln Leu Ile Gln Asn His Phe Val Asp Glu Tyr
 20 25 30
 Asp Pro Thr Ile Glu Asp Ser Tyr Arg Lys Gln Val Val Ile Asp Gly
 35 40 45
 Glu Thr Cys Leu Leu Asp Ile Leu Asp Thr Ala Gly Gln Glu Glu Tyr
 50 55 60
 Ser Ala Met Arg Asp Gln Tyr Met Arg Thr Gly Glu Gly Phe Leu Cys
 65 70 75 80
 Val Phe Ala Ile Asn Asn Thr Lys Ser Phe Glu Asp Ile His His Tyr
 85 90 95
 Arg Glu Gln Ile Lys Arg Val Lys Asp Ser Glu Asp Val Pro Met Val
 100 105 110
 Leu Val Gly Asn Lys Cys Asp Leu Pro Ser Arg Thr Val Asp Thr Lys
 115 120 125
 Gln Ala Gln Asp Leu Ala Arg Ser Tyr Gly Ile Pro Phe Ile Glu Thr
 130 135 140
 Ser Ala Lys Thr Arg Gln Gly Val Asp Asp Ala Phe Tyr Thr Leu Val
 145 150 155 160
 Arg Glu Ile Arg Lys His Lys Glu Lys Met Ser Lys Asp Gly Lys Lys
 165 170 175
 Lys Lys Lys Lys Ser Lys Thr Lys Cys Val Ile Met
 180 185

<210> 11
 <211> 188
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Xaa = any amino acid

<400> 11
 Met Thr Glu Tyr Lys Leu Val Val Val Gly Ala Cys Gly Val Gly Lys
 1 5 10 15
 Ser Ala Leu Thr Ile Gln Leu Ile Gln Asn His Phe Val Asp Glu Tyr
 20 25 30
 Asp Pro Thr Ile Glu Asp Ser Tyr Arg Lys Gln Val Val Ile Asp Gly
 35 40 45
 Glu Thr Cys Leu Leu Asp Ile Leu Asp Thr Ala Gly Xaa Glu Glu Tyr
 50 55 60
 Ser Ala Met Arg Asp Gln Tyr Met Arg Thr Gly Glu Gly Phe Leu Cys
 65 70 75 80
 Val Phe Ala Ile Asn Asn Thr Lys Ser Phe Glu Asp Ile His His Tyr
 85 90 95
 Arg Glu Gln Ile Lys Arg Val Lys Asp Ser Glu Asp Val Pro Met Val

	100		105		110
Leu Val Gly	Asn Lys Cys Asp	Leu Pro Ser Arg Thr	Val Asp Thr Lys		
	115		120		125
Gln Ala Gln	Asp Leu Ala Arg Ser Tyr Gly	Ile Pro Phe Ile Glu Thr			
	130		135		140
Ser Ala Lys	Thr Arg Gln Gly Val Asp Asp	Ala Phe Tyr Thr Leu Val			
	145		150		155
Arg Glu Ile	Arg Lys His Lys Glu Lys Met	Ser Lys Asp Gly Lys Lys			160
	165		170		175
Lys Lys Lys	Lys Ser Lys Thr Lys Cys Val Ile Met				
	180		185		

<210> 12
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> artificial human K-ras antisense oligonucleotide
 with phosphorothioate linkages

<400> 12
 ctacgccaac agctcca

17

<210> 13
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> artificial human K-ras antisense oligonucleotide
 with phosphorothioate linkages

<400> 13
 ctacgccacg agctcca

17

<210> 14
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> artificial human K-ras antisense oligonucleotide
 with phosphorothioate linkages

<400> 14
 ctacgccatc agctcca

17

<210> 15
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> artificial antisense K-ras artificial
 oligonucleotide, with phosphorothioate linkages

18

```
<220>
<223> artificial mismatched antisense K-ras artificial
      oligonucleotide
```

18

```
<220>
<223> artificial scrambled antisense artificial
      oligonucleotide
```

18